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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,744	10/19/2001	Dong Wan Ryoo	P67235US0	6169

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EXAMINER	
TORRES, JOSEPH D	

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/981,744	RYOO ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 October 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The proposed drawing correction filed 07 June 2004 is approved. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

The amendment filed 06/06/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "For example, if the channels A to C output the high signals and the channel D outputs the low signal in the four channels A to D, a failure detection signal is transmitted informing that the channel D is failed", "if the comparator 32 determines that the failed channel failed due to an instantaneous noise, the comparator transmits an initialization signal to cancel the failure detection signal" and "If the comparator 32 determines that the failed channel failed due to an instantaneous noise, the comparator transmits an initialization signal to cancel the failure detection signal so the channel can be normally operated again". Applicant is required to cancel the new matter in the reply to this Office Action.

Claims 1 and 8 recite, "carrying out a feedback of a signal same that is substantially similar to the as signals of other channels". The Applicant does not teach every conceivable interpretation of the limitation in the specification since the signals can be substantially similar because they have the same frequency, the same amplitude or because they are NRZ signals. The applicant only teaches that that the signal is the same as the majority of the signals of the other redundant channels.

The Examiner would like to point out that it appears the Applicant is attempting to introduce new matter to fix problem with the claim language. In doing so the Applicant is introducing new problems that nee fixing. For Example, where does the failure detection signal come from? If the failure detection signal comes from the comparator, then why would the comparator need to transmit the initialization signal to cancel the failure detection signal since it could just as easily cancel the failure detection signal internally? The questions are, however mute, and it appears that the Applicant had not thought out and reduced to practice these aspects prior to the filing date of the current application. The Examiner suggests that the Applicant file a Divisional so that the Applicant can add new matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 8 recite new matter, "if the comparing means determines that the failed channel failed due to an instantaneous noise, the **comparing means** transmits an initialization signal to cancel the failure detection signal" [Emphasis Added].

Nowhere, in the specification or the drawings does the Applicant teach that comparison means 32 in Figure 2 transmits an initialization signal.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 8 recite, "carrying out a feedback of a signal same that is substantially similar to the as signals of other channels". The Applicant does not teach every conceivable interpretation of the limitation since the signals can be substantially similar because they have the same frequency, the same amplitude or because they are NRZ

signals. The applicant only teaches that that the signal is the same as the majority of the signals of the other redundant channels.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially similar" in claims 1 and 8 is a relative term which renders the claim indefinite. The term "substantially similar" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim does not specify what characteristics of the signal make it substantially similar to signals of the other channel. That is, is it substantially similar because they are digital signals, analog signals, of the same frequency, of the same amplitude or whatever other characteristic might make them substantially similar?

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Claims 1 and 8 recite, “carrying out a feedback of a signal same that is substantially similar to the as signals of other channels”. The omitted structural

cooperative relationships are: the structural relationship between "a signal" and "signals of other channels" that makes them substantially similar.

Response to Arguments

3. Applicant's arguments filed 06/06/2005 have been fully considered but they are not persuasive.

The Applicant contends, "Nurmohamed fails to teach or suggest an apparatus for inspecting errors that includes a comparing means for outputting a failure detection signal of the failed channel and that if the comparing means determines that the failed channel failed due to an instantaneous noise, the comparing means transmits an initialization signal to cancel the failure detection signal and also includes a signal-maintaining means for carrying out a feedback of a signal that is substantially similar to the signals of the other channels, as recited in claim 1". The recited limitations are rejected under 35 U.S.C. 112, first and second paragraphs for the following reasons and hence not given any patentable weight:

Claims 1 and 8 recite new matter, "if the comparing means determines that the failed channel failed due to an instantaneous noise, the **comparing means** transmits an initialization signal to cancel the failure detection signal" [Emphasis Added].

Nowhere, in the specification or the drawings does the Applicant teach that comparison means 32 in Figure 2 transmits an initialization signal.

Claims 1 and 8 recite, "carrying out a feedback of a signal same that is substantially similar to the as signals of other channels". The Applicant does not teach every conceivable interpretation of the limitation since the signals can be substantially similar because they have the same frequency, the same amplitude or because they are NRZ signals. The applicant only teaches that that the signal is the same as the majority of the signals of the other redundant channels.

The term "substantially similar" in claims 1 and 8 is a relative term which renders the claim indefinite. The term "substantially similar" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim does not specify what characteristics of the signal make it substantially similar to signals of the other channel. That is, is it substantially similar because they are digital signals, analog signals, of the same frequency, of the same amplitude or whatever other characteristic might make them substantially similar?

Claims 1 and 8 recite, "carrying out a feedback of a signal same that is substantially similar to the as signals of other channels". The omitted structural cooperative relationships are: the structural relationship between "a signal" and "signals of other channels" that makes them substantially similar.

The Examiner disagrees with the applicant and maintains all rejections of claims 1-6 and 8-13 (Note: Claims 8-13 respectively recite all the limitations as in claims 1-6, whereby the judging means is a voter circuit as taught in Nurmohamed). All

amendments and arguments by the applicant have been considered. It is the Examiner's conclusion that claims 1-6 and 8-13 are not patentably distinct or non-obvious over the prior art of record in view of the reference, Nurmohamed; Amin Mulji et al. (US 3725818 A, hereafter referred to as Nurmohamed) as applied in the last office action, Paper No. 4 (filed 09 March 2004). Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nurmohamed; Amin Mulji et al. (US 3725818 A, hereafter referred to as Nurmohamed).

See Paper No. 4 (filed 09 March 2004) for detailed action of prior rejections (Note: Claims 8-13 respectively recite all the limitations as in claims 1-6, whereby the judging

means is a voter circuit as taught in Nurmohamed).

Conclusion

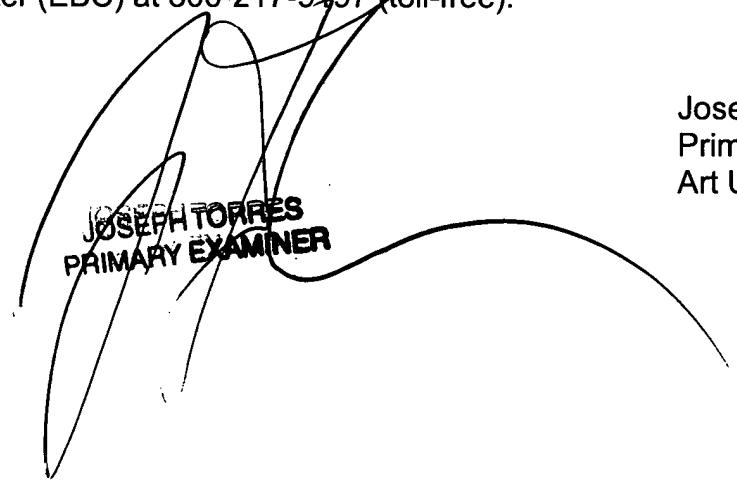
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 2133